IN THE CLAIMS

1. (currently amended) A protection path setup method comprising the steps of:

(a)   setting up a working path from a start-point node to an end-point node; and

(b)   setting up a plurality of protection paths by taking a plurality of nodes on said

working path as respective start points at the time of setting up said working path, wherein

step (a) includes the substeps of:

transferring a working path setup request message containing therein a protection path

request from a start point to an end point of said working path along a route of said working path

being set up; and

setting up said working path by transferring a working path setup response message from

the end point to the start point of said working path in response to said working path setup

request message, and

step (b) includes the substeps of:

transferring a protection path setup request message from a start point to an end point of

each of said plurality of protection paths in response to said protection path request contained in

said working path setup request message; and

setting up each of said plurality of protection paths by transferring a protection path setup

response message from the end point to the start point of said each protection path in response to

said protection path setup request message.

2. (canceled)

3. (currently amended) A method according to claim [[2]] 1, wherein said protection

path setup request message is sent out from each node after said each node has received said

working path setup response message.

4. (original) A method according to claim 3, wherein

step (b) further includes the substeps of:

sending a result notification from said end-point node of said working path to an

upstream adjacent node along said working path; and

notifying the completion of said protection path setup to said start-point node of said

working path, by each node on said working path sequentially passing said result notification on

to an upstream adjacent node along said working path after receiving both said result notification

and said protection path setup response message for the protection path set up with said each

node as the start point.

5. (original) A method according to claim 3, wherein step (b) further includes the substep

of determining whether a portion of a protection path about to be set up can share a bandwidth

with some other protection path.

6. (original) A method according to claim 3, wherein step (b) further includes the substep

of estimating a delay along a route from the start point to the end point of said working path,

including the protection path about to be set up, at the end-point node of said protection path.

7. (original) A method according to claim 3, wherein step (a) further includes the substep of appending at each node an identifier of said each node to said working path setup response message, thereby making it possible to set up a protection path across an area border.

8. (original) A method according to claim 1, further comprising the steps of:

(c)   releasing said plurality of protection paths that have been set up in step (b); and

(d)   releasing said working path that has been set up in step (a).

9. (currently amended) A node apparatus comprising:

means for setting up a working path with its own node as a start point; and

means for setting up a protection path with its own node as a start point during the setting up of said working path, wherein

said working path setup means includes:

means for sending out a working path setup request message containing therein a protection path request for delivery to an end point of said working path along the route of said working path being set up; and

means for setting up said working path by receiving a working path setup response message returned in response to said working path setup request message, and

said protection path setup means includes:

means for sending out a protection path setup request message; and

means for setting up said protection path by receiving a protection path setup response message returned in response to said protection path setup request message.

10. (canceled)

11. (currently amended) A node apparatus according to claim [[10]] 9, wherein said protection path setup request message is sent out after receiving said working path setup response message.

12. (currently amended) A node apparatus according to claim [[10]] 9, wherein said protection path setup means further includes means for determining whether a portion of the protection path about to be set up can share a bandwidth with some other protection path.

13. (original) A node apparatus according to claim 9, further comprising:

means for releasing said protection path set up by said protection path setup means; and

means for releasing said working path set up by said working path setup means.

14. (currently amended) A node apparatus comprising:

means for setting up a working path passing through its own node; and

means for setting up a protection path with its own node as a start point during the setting up of said working path, wherein

said working path setup means includes:

means for transferring a working path setup request message containing therein a protection path request and being forwarded from a start point toward an end point of said working path along the route of said working path being set up; and

means for setting up said working path by transferring a working path setup response message being returned from the end point toward the start point of said working path in response to said working path setup request message, and

said protection path setup means includes:

means for sending out a protection path setup request message in response to said protection path request contained in said working path setup request message; and

means for setting up said protection path by receiving a protection path setup response message returned in response to said protection path setup request message.

15. (canceled)

16. (currently amended) A node apparatus according to claim [[15]] 14, wherein said protection path setup request message is sent out after receiving said working path setup response message.

17. (currently amended) A node apparatus according to claim [[15]] 14, wherein said protection path setup means includes:

means for receiving a result notification being transferred from the end-point node of said working path; and

means for passing said result notification on to an upstream adjacent node along said working path after receiving both said result notification and said protection path setup response message.

18. (currently amended) A node apparatus according to claim [[15]] 14, wherein said protection path setup means further includes means for determining whether a portion of the protection path about to be set up can share a bandwidth with some other protection path.

19. (currently amended) A node apparatus according to claim [[15]] 14, wherein said protection path setup means further includes means for estimating a delay along a route from the start point to the end point of said working path including the protection path about to be set up.

20. (currently amended) A node apparatus according to claim [[15]] 14, wherein said working path setup means further includes means for appending an identifier of its own node to said working path setup response message, thereby making it possible to set up a protection path across an area border.

21. (original) A node apparatus according to claim 14, further comprising:

means for releasing said protection path set up by said protection path setup means; and

means for releasing said working path set up by said working path setup means.

22. (currently amended) A node apparatus comprising:

means for setting up a working path with its own node as an end point; and

means for setting up a protection path with its own node as an end point during the setting up of said working path, wherein

said working path setup means includes:

means for receiving a working path setup request message containing therein a protection path request and transmitted from a start point of said working path along the route of said working path being set up; and

means for setting up said working path by transmitting a working path setup response message toward the start point of said working path in response to said working path setup request message, and

said protection path setup means includes:

means for receiving a protection path setup request message transmitted from a start point of said protection path in response to the protection path request contained in said working path setup request message; and

means for setting up said protection path by transmitting a protection path setup response message toward the start point of said protection path in response to said protection path setup request message.

23. (canceled)

24. (currently amended) A node apparatus according to claim [[23]] 22, wherein said working path setup means further includes means for sending a result notification to an upstream adjacent node along said working path.

25. (currently amended) A node apparatus according to claim [[23]] 22, wherein said working path setup means further includes means for appending an identifier of its own node to

said working path setup response message, thereby making it possible to set up a protection path across an area border.

26. (original) A node apparatus according to claim 22, further comprising:

means for releasing said protection path set up by said protection path setup means; and

means for releasing said working path set up by said working path setup means.